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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,336	07/18/2003	Joseph M. Piana		2507

7590 06/03/2005  
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EXAMINER

DUDA, RINA I

ART UNIT PAPER NUMBER

2837

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/621,336

Applicant(s)

PIANA ET AL.

Examiner

Rina I. Duda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's arguments with respect to claims 20-24 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20, 21, 23, 25, 26-30, 32, 34-40, 42, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett et al (US patent 5611096) and Wiley et al (US patent 5808552).

Claims 20 and 44, Bartlett et al teaches an adjustable bed 10, a combination of motors for adjusting the position of the mattress, and an enclosed frame 12 for supporting the mattress. Bartlett et al fail to disclose a detection means for detecting the presence of a human or animal inside the frame.

However Wiley et al teaches a patient detection system comprising detection means 20 for detecting the presence of a human, wherein said detection means is located beneath the mattress.

Claims 21, 30, 40, 45, and 46, Wiley et al describes a second detection means 22 for detecting the presence of a human in the bed.

Claims 25 and 34, Bartlett et al show in figure 3 and 4 a junction box for controlling the operation of the bed including a microprocessor 42 for driving a plurality

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pf motors based on sensors 44/45, a power supply 43 for receiving a 120 VAC and converting it into 5 VDC suitable for use by the processor, and a voltage regulator for regulating the voltage in the system.

Claim 26, Bartlett et al describes that the universal power supply is 120 AC.

Claims 27 and 37, Bartlett et al/Wiley et al disclose the claimed invention except for a means for connecting two controllers together. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect two different controllers for operating the bed, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *Regis Paper Co v. Bemis Co*, 193 USPQ 8.

Claims 28 and 38, Bartlett et al describe in column 7 lines 8-9 that processor 42 includes memory.

Claims 29 and 39, Wiley et al describe a series of elements 110 connected to the main controller 120.

Claims 35 and 36, Bartlett et al/Wiley disclose the claimed invention except for the frequency range. It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose a frequency between 418 MHz-433MHz, since it has been held that where the general condition of a claim are disclose in the prior art discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 23, 32, and 42, Bartlett et al show in figure 2 how the sensing plates 30 of sensing elements 20 and 22 are enclosed for limiting visibility of the actual sensing plates.

Claims 47-51, Bartlett et al describe in column 13 lines 65-67 and in column 14 lines 1-5 various safety features for preventing the mattress from moving.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the detection system of Wiley et al to detect the presence of a human and place said detection signal beneath the mattress, since the detection system would help caregiver monitor the presence or absence of a patient on a patient support device, placing the sensing mechanism beneath the mattress would allow the sensing elements not to interfere with the operation of the mattress.

4. Claims 24, 33, and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett et al and Wiley et al as applied to claim 20 above, and further in view of Smith et al (US Patent 6544200), of record.

The difference between claims 24/33/43 and the teachings of Bartlett et al/Wiley is that the claims recite that the detection means detects the presence of a human by detecting an ambient temperature change inside the frame.

However, Smith et al teach a patient monitor system including detecting means 620 for monitoring ambient temperature.

Therefore, it would have obvious to one person of ordinary skill in the art at the time the invention was made to choose a temperature detecting means for detecting the

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presence of a patient on the bed, since said monitors would provide a caregiver with a unit that detects no or excessive levels of heat.

5. Claims 22, 31, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett et al/Wiley as applied to claim 20 above, and further in view of Lee (US Patent 5742055), of record.

The difference between claims 22/31/41 and the teachings of Bartlett et al/Wiley et al is that the claims recite a pyroelectric sensor, a light source, and a fresnel lens as the detection means.

However Lee teaches a device for sensing the position of a human body using infrared sensor 12.

It would have obvious to use a pyroelectric sensor for sensing the presence of a human on the bed, since pyroelectric sensors not only sense the presence of a human body and the activity, but also the location and direction of movement of anyone present.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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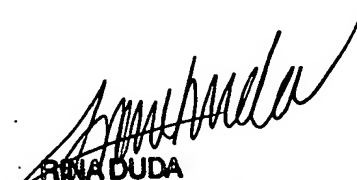
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rina I. Duda whose telephone number is 571-272-2062.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RD

  
RINA DUDA  
PRIMARY EXAMINER